

CLAIMS

- Sub 06 >
1. Reagent for detecting an infection caused by a human immunodeficiency virus, characterized in that it comprises a mixture consisting of (1) an antigenic peptide coded for by the *pol* gene of HIV-1 and comprising at most 60 amino acids, preferably between 20 and 40 amino acids, and (2) a mixture, called a mixotope, of convergent combinatorial peptides derived from said antigenic peptide.
 2. Reagent according to Claim 1, characterized in that said antigenic peptide corresponds to an epitope of the integrase coded for by the *pol* gene of HIV-1.
 - 10 3. Reagent according to Claim 2, characterized in that said antigenic peptide corresponds to the sequence KIQNFRVYYRDSRDPLWKGPALLWKGEHAV-VIQDN (SEQ ID NO:1) (HIV-POL).
 4. Reagent according to any one of Claims 1 to 3, characterized in that the mixotope corresponds to a degeneration of the whole of the selected antigenic peptide.
 - 15 5. Reagent according to any one of Claims 1 to 4, characterized in that the antigenic peptide (1) and the mixotope (2) are attached to a solid support, preferably microtitre plates.
 6. Reagent according to Claim 5, characterized in that said antigenic peptide (1) and said mixotope (2) are attached to said support sequentially.
 - 20 7. Reagent according to any one of Claims 1 to 6, characterized in that the ratio of antigenic peptide to mixotope in the mixture is between 1:10 and 1:100.
 8. Enzyme immunological method of diagnosing an HIV-1 infection, characterized in that it employs a diagnostic reagent according to any one of Claims 1 to 7.
 - 25 9. Method according to Claim 8, characterized in that it comprises:
 - bringing a serum to be analysed into contact with a reagent according to any one of Claims 1 to 7;
 - adding anti-human Ig antibodies coupled with an enzyme; and
 - 30 - qualitatively and/or quantitatively disclosing the anti-integrase antibodies which may be present in the serum to be analysed by adding the enzyme substrate.
 10. Method according to Claim 8, characterized in that it comprises:
 - attaching a reagent according to any one of Claims 1 to 7 to a support such as a microtitre plate;

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- adding the serum to be analysed;
 - detecting the attachment of the anti-integrase antibodies present in said serum by adding anti-human IgG antibodies coupled with an enzyme; and
 - qualitatively and/or quantitatively disclosing said antibodies in a spectro-
- 5 photometer by adding the enzyme substrate.
11. Kit for diagnosing an HIV-1 infection, characterized in that it comprises at least one reagent according to any one of Claims 1 to 7.

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